



**Karolinska
Institutet**

Course syllabus for

Clinical Medicine - Emphasis on Reproduction and Development, 22.5 credits

Klinisk medicin - inriktning reproduktion och utveckling, 22.5 hp

This course syllabus is valid from autumn 2016.

Please note that the course syllabus is available in the following versions:

Spring2014 , Autumn2015 , Autumn2016 , Autumn2018 , Autumn2019 , Spring2020 , Autumn2020 , Autumn2021 , Spring2022 , Spring2023 , Spring2024 , Spring2025

Course code	2LK111
Course name	Clinical Medicine - Emphasis on Reproduction and Development
Credits	22.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Medicine
Level	AV - Second cycle
Grading scale	Pass, Fail
Department	Department of Women's and Children's Health
Participating institutions	<ul style="list-style-type: none">• Department of Clinical Sciences, Danderyd Hospital• Department of Clinical Science, Intervention and Technology• Department of Molecular Medicine and Surgery• Department of Clinical Science and Education, Södersjukhuset
Decided by	Programme Committee 2
Decision date	2013-10-25
Revised by	Programme Committee 2
Last revision	2016-05-03
Course syllabus valid from	Autumn 2016

Specific entry requirements

All credits from semester 1-7

Students who fail to meet placement requirements by demonstrating serious deficiencies in knowledge, skills or attitudes, or who jeopardise patient safety or quality of healthcare, will be eligible for re-qualification for new placement opportunities only after an individual action plan has been successfully completed.

Objectives

Learning Outcomes The aim of the course is to provide the student with the knowledge, skills and competency to interact with patients in a safe and professional way, to ensure an ability to diagnose and process a range of common and serious paediatric and gynaecological/obstetric health issues. This requires basic skills in communicating with patients and families as well as carrying out age appropriate and directed medical histories and clinical examinations. It also requires integrating learned basic science and clinical knowledge. Learning outcomes for knowledge and understanding are structured according to the SOLO taxonomy (S1-S4) and corresponding skills according to Miller's pyramid (M1-M4). *

Intended learning outcomes

Knowledge and understanding The student should be able to

- *analyse, discuss and diagnose* a range of common and serious disease in children and adolescents, as well as women in natal and/or gynaecological care. (S3)
- *describe* normal development of the fetus and the child as well as diagnose genetic, mental and other developmental deviations in children. (S3)
- *reflect on and discuss* risk associated with children, adolescents and women in the contexts of family, close relations and broader society. (S4)
- *explain* different heredity patterns and genetic mechanisms that lead to diseases. *Analyse* family histories as well as *reflect* on ethical aspects of genetic testing, prenatal diagnosis and genetic consultations for patients and family (S3)
- *reflect* on health promotion for pregnant woman, fetuses, newborn, children, adolescents and women. (S3)

Skills The student should be able to

- *acquire, interpret and document relevant* medical records and statuses, as well as handle the range of conditions facing pregnant women, fetuses, children, adolescents and women of all different ages. (M3)
- *evaluate* findings from medical and ethical principles and be *able to explain and communicate these* with patients, relatives, staff and students. (M3) *apply* relevant statutes, laws and conventions with respect to the health, rights and well-being of children, adolescents and women. (M3)

Attitude The student should be able to

- respond *respectfully to and interact professionally* with patients, relatives, teachers as well as health-care personnel both in conversations and during examinations, irrespective of background, sex or sexual orientation.
- *Actively* take responsibility for his/her learning and professional development in the variety of theoretical, practical and interprofessional teaching components and have an ethical attitude, as well as be able to *reflect* on his/her own limitations.

*

The knowledge is structured according to the SOLO taxonomy:

S1) simple (e.g. *know, identify*)

S2) composite (e.g. *account for, describe*)

S3) related (e.g. *analyse, relate*)

S4) extended (e.g. *theorise, analyzs*)

The skills goals are structured according to Miller's pyramid:

M1) know

M2) to apply knowledge

M3) to be able to show

M4) to be able to demonstrate professionally

Content

The course includes specialties in gynaecology and obstetrics, paediatrics, pediatric surgery, psychiatric services for children and adolescents as well as clinical genetics. Evaluation is based on the student's participation in the care and discussion of patient cases during placements. Teaching will take place in both in- and out-patient care settings. Interprofessional learning is a central part of the course in order to prepare students for their future professional roles.

Clinical medicine with emphasis on reproduction, 10 hp The component includes the subject areas gynaecology and obstetrics in in- and out-patient care. Clinical placements are central in the course and strong emphasis is placed on primary care, disease prevention and on principles of diagnostic strategy. This component also contains at risk women in familial and societal contexts and addresses other relevant statutes and laws. New knowledge is integrated with earlier basic science and clinical knowledge.

Clinical medicine with emphasis on development, 10 hp This component includes the subject areas of paediatrics, pediatric surgery as well as psychiatric services for children and adolescents. This component will also cover development anomalies in children as well as disease etiology. We also work to promote good health for at risk children. Special attention will be given to statutes and laws relevant to investigating and supporting cases involving at risk youth. Strong emphasis is placed on understanding and responding to children of different ages and their guardians as well as understanding differences between children and adult physiology across a spectrum of diseases. Clinical placements are a central part of the course, where the student is placed both in-hospital and out-patient care.

Professional development, 0.5 hp The Professional Development includes a mentor-driven workshop consisting of individual self-assessment, with a half-day with a focus on medical-ethical issues in genetics, pregnancy, the post-natal care, children and adolescents. The international students will have an alternative component of this course.

Clinical Genetics, 2 hp The component treats the principles for when one should suspect a chromosome aberration or other hereditary disease, risk assessments of these conditions as well as how one identifies healthy genetic traits, the principles of researching genetic history and how preventive measures can be used to curb disease.

Teaching methods

The course starts with an introduction consisting of lectures, seminars and examination technique in respective component. The rest of the course consists of lectures, seminars, workshops, group assignment, proficiency training and interprofessional training. Individual studies before interactive seminars. Students may be scheduled evenings, nights and weekends. During the spring semester, the course is given in English.

Examination

Students will be assessed in all components of the course from professionalism and skill at the clinical placements as well as the seminars, case-based teaching, proficiency training and interprofessional study described above.

'Professionalism' may also be assessed outside established examinations such as at different educational occasions and in other course-related contacts.

Written examinations of compulsory components are mandatory. Placement and partial examinations included.

Component Reproduction *Mandatory requirements* In order to attend clinical placements the student is required to participate in the skillbased training of examination techniques as an introduction to clinical placements. Clinical placement Seminars Proficiency training Interprofessional education

Examination: Written examination Structured practical test Passed achievement in placement

Component Development *Mandatory requirements* In order to attend clinical placements the student must participate in proficiency training of status examination of children as well as an introduction to clinical placements. Clinical placement Seminars Proficiency training Interprofessional education

Examination: Written assignment (Children and adolescent psychiatry) Written examination Structured practical test Passing achievement in placement

Component Professional skills *Mandatory requirements* Mentor-driven workshop day Seminar in medical ethics

Examination Passing achievement in seminar, as above. Formative assessment by mentor during workshop.

Component Clinical Genetics *Mandatory requirements* Group assignment

Examination Written assignment Written examination

Examiner assesses if and how the student might make up for absence from mandatory course requirements. A final assessment cannot be given until the student successfully completes all of the compulsory course requirements (or made arrangements with instructors to make up for absences during the course). Absence from compulsory course requirements may result in failure of the course. Absence may result in course work not being able to be completed until future courses are offered.

Students who do not pass a regular examination are entitled to re-sit the examination on five more occasions. If the student has carried out six failed examinations no additional examination will be given. In such and event the student will be offered the opportunity to retake the course.

The examiner may, with immediate effect, interrupt a student's clinical placement (or equivalent) if the student demonstrates such serious deficiencies in knowledge, skills or attitude that patient safety or patient confidence in healthcare is at risk. If a clinical placement is interrupted in this way the student is deemed to have failed that element and to have used up one clinical placement opportunity. In such cases an individual action plan, stating the required proficiency skills and other activities necessary in order for the student to resume his/her clinical placements, must be established. In such cases only one new clinical placement opportunity is given during the course. If the student is unsuccessful, an

opportunity to retake the course from the beginning will be made available.

Transitional provisions

If a course has been cancelled or undergone major changes, at least two additional examinations (excluding regular examinations) on the previous contents will be provided within a year of the date of the change.

Other directives

Course evaluation takes place according to the guidelines that have been established by the Board of Education at Karolinska Institute.

Literature and other teaching aids

Clinical medicine with emphasis on reproduction

Recommended literature and study material

Hagberg, Henrik

Obstetrik

Marsal, Karel; Westgren, Magnus

2., [uppdaterade] uppl. : Lund : Studentlitteratur, 2014 - 715 s.

ISBN:9789144095707 (inb.) LIBRIS-ID:16249815

[Library search](#)

Gynekologi

Janson, Per Olof; Landgren, Britt-Marie

2. uppl. : Lund : Studentlitteratur, 2015 - 376 s.

ISBN:9789144092591 LIBRIS-ID:17350451

[Library search](#)

Beckmann, Charles R. B.

Obstetrics and gynecology.

6th ed. : Philadelphia : Wolters Kluwer/Lippincott Williams & Wilkins, c2010. - xiii, 497 p.

ISBN:978-0-7817-8807-6 LIBRIS-ID:12042290

[Library search](#)

Llewellyn-Jones, Derek

Llewellyn-Jones fundamentals of obstetrics and gynaecology

Oats, Jeremy; Abraham, Suzanne

9. ed. : Edinburgh : Mosby, 2010 - viii, 354 p.

ISBN:978-0-7234-3509-9 (main edition : alk. paper) LIBRIS-ID:11787081

[Library search](#)

O'Reilly, Barry; Bottomley, Cecilia; Rymer, Janice

Essentials of obstetrics and gynaecology

2nd ed. : Edinburgh : Elsevier, 2012 - x 329 p.

ISBN:9780702043611 LIBRIS-ID:14968461

[Library search](#)

Problemorienterad gynekologi och obstetrik

Bixo, Marie; Bäckström, Torbjörn

1. uppl. : Stockholm : Liber, 2014 - 476 s.

ISBN:9789147117253 LIBRIS-ID:16608519

[Library search](#)

Clinical medicine with emphasis on development***Recommended literature and study material***

Albinsson, Eva

Pediatric Ped.

Moëll, Christian; Gustafsson, Jan

1. uppl. : Stockholm : Liber, 2011 - 598 s.

ISBN:978-91-47-09375-5 (inb.) LIBRIS-ID:12300521

[Library search](#)

Illustrated textbook of paediatrics

Lissauer, Tom; Clayden, Graham

4. ed. : Edinburgh : Mosby, 2012 [dvs 2011] - xiv, 533 s..

ISBN:9780723435655 LIBRIS-ID:12319597

[Library search](#)

Barnmedicin

Hanséus, Katarina; Lagercrantz, Hugo; Lindberg, Tor

4., [rev. och uppdaterade] uppl. : Lund : Studentlitteratur, 2012 - 674 s.

ISBN:978-91-44-07609-6 (inb.) LIBRIS-ID:12531935

[Library search](#)

Widlund, Tomas

Akut pediatrik

Norgren, Svante; Ludvigsson, Jonas F.; Norman, Mikael

7., kompletterade och rev. uppl. : Stockholm : Liber, 2010 - 383 s.

ISBN:978-91-47-09402-8 LIBRIS-ID:11864066

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Kompendium i barnkirurgi och barnortopedi

Frenckner, Björn; Hirsch, Georg; Wester, Tomas; Åstrand, Per

[Ny, omarb. och uppdaterad utg.] : Stockholm : Karolinska Institutet University Press, 2015 - 388 s.

ISBN:9789185565764 LIBRIS-ID:17592866

[Library search](#)

Kliegman, Robert; Nelson, Waldo E.

Nelson textbook of pediatrics

18. ed. : Philadelphia : Saunders Elsevier, cop. 2007

ISBN:978-1-41602450-7 LIBRIS-ID:10532141

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Clinical Genetics

Recommended literature and study material

Genetiska sjukdomar

Nordenskjöld, Magnus

1. uppl. : Stockholm : Liber, 2011 - 326 s.

ISBN:978-91-47-09417-2 LIBRIS-ID:12280743

[Library search](#)

Read, Andrew P.; Donnai, Dian

New clinical genetics

2. ed. : Oxfordshire, UK : Scion, 2011 - xvii, 442 s.

ISBN:978-1-904842-80-4 LIBRIS-ID:12071084

This book may be borrowed from the course administration for international students

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